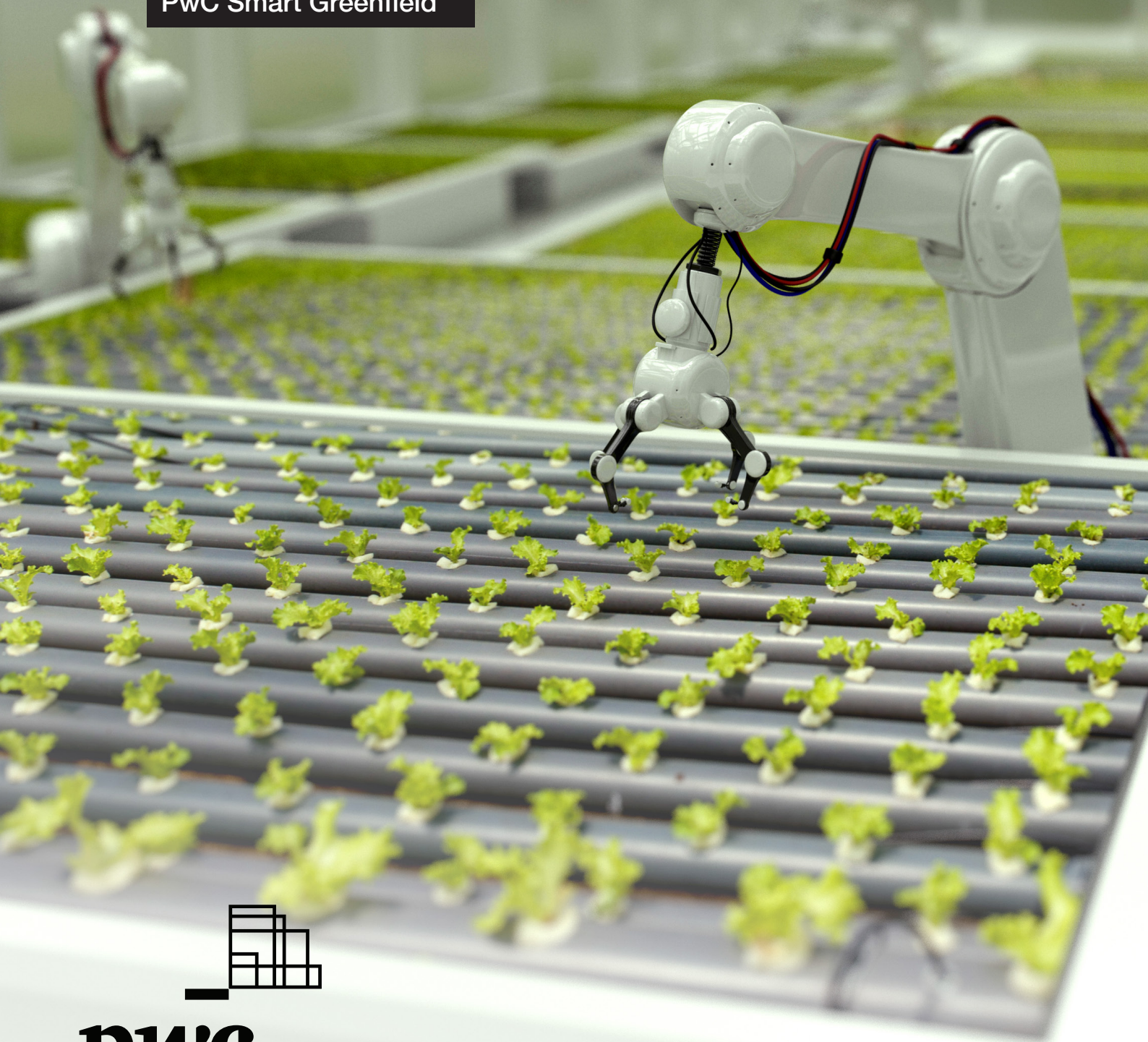


# Getting the most out of your current solution while moving to SAP S/4HANA

PwC Smart Greenfield



# Why organisations are moving to SAP S/4HANA

An increasing number of businesses are reorganising around SAP S/4HANA in every sector of business, with reasons for making the change.

Most of the time, these transformation efforts are not merely seen as a technical improvement (considering the upcoming end of mainstream maintenance of SAP ECC on 31 December 2027) but instead as a chance to assess the organisation and improve how it operates.

The need for a more agile, scalable, and value-driven business process chain and IT landscape is high on the agendas of both CEOs and CIOs.

We observed that the cases for change at our clients frequently involve common levers:



Standardise the processes across business units and regions to drive synergy, increase productivity, improve efficiency, and reduce costs.



Adopt a common technology platform for core processes to organise business effectively and increase sales.



Leverage emerging technologies across the enterprise to automate processes, improve agility and increase customer satisfaction.



Adopt a standardised data model with strong governance across the company, to enable compliance and reduce organisational risks.



Enable cultural change, improve visibility, and increase transparency in the organisation, by implementing new technology solutions to achieve operational excellence.

Once organisations achieve a consensus about the case for change supported by a strong business case, at the start of the journey to transform the SAP landscape towards S/4HANA, one of the critical factors is to select the appropriate migration approach.

In this paper we will introduce the difficulties and benefits of the typical migration strategies in large

S/4HANA transformations, as well as the approach that PwC has developed and applied with multiple clients to guarantee that they consistently achieve their business value goals in their transformation initiatives.

This approach is called Smart Greenfield.



# How organisations are moving to S/4HANA

The impact of the operating model and processes on the S/4HANA migration strategy is the 'brownfield dilemma' that organisations need to address.

One of the major cornerstones of the S/4HANA transformation journey is to **decide on the right approach when it comes to implementation**.

The two most common implementation approaches offered by the market are Greenfield and Brownfield.

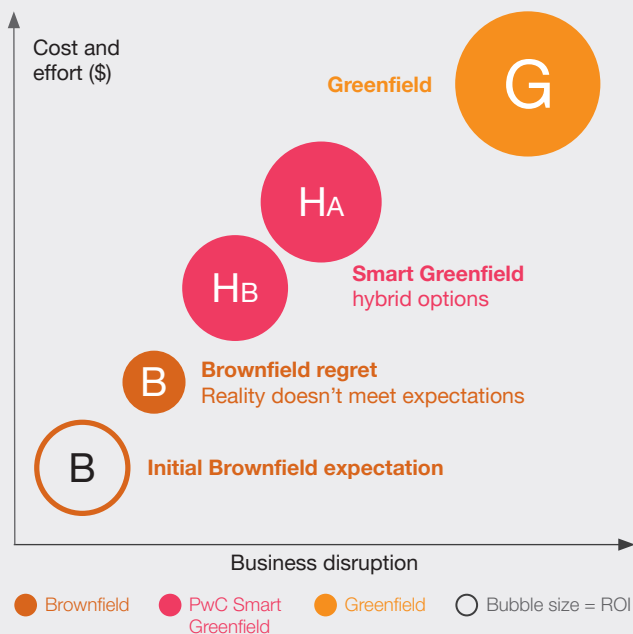
Some companies choose to start from scratch with Greenfield and define a fresh template based on a best-practice industry solution. The Greenfield approach takes longer, but results in improved standardisation and improvement potential from the start. However, in this case you cannot migrate all your historical data.

Other companies choose to convert their SAP ECC to S/4HANA using a Brownfield approach, which

helps with mandatory simplifications while retaining customisations, development and the full amount of data. Further standardisation is needed to achieve the target standardisation level.

**Standard Greenfield and Brownfield approaches do not meet the market requirements.**

Clients often want more flexibility than the two options outlined above, and many of them therefore start searching for various 'hybrid' alternatives, which combine technology upgrade with selective renovation. The challenge is to find the hybrid option with the best ROI and balance in terms of cost/disruption.



## Greenfield – Redesign

New implementation of SAP S/4HANA, integrating with dependent systems and converting data.

## PwC Smart Greenfield (hybrid options)

### Hybrid A – Selective process renovation/innovation

For organisations that want to transition to S/4HANA within a short timeline, bring existing data, de-customise where possible and selectively renovate or transform processes.

### Hybrid B – Selective data transformation

For organisations with a large footprint of data, data integrity issues, or a need for some enterprise structure changes.

## Brownfield – (Technical) System Conversion

Many consider full Brownfield as the low-cost benchmark against which to compare all other options. Conservative/constrained companies are choosing a technical migration to start while hybrid options are detailed.

PwC has created the Smart Greenfield strategy for S/4HANA conversions, a 'hybrid' approach which helps clients to achieve their desired ROI and a balance in terms of cost/disruption.

The PwC's Smart Greenfield approach for S/4HANA allows questions about process re-use to be answered

**not for the entire system, but for the different solutions and application areas separately.**

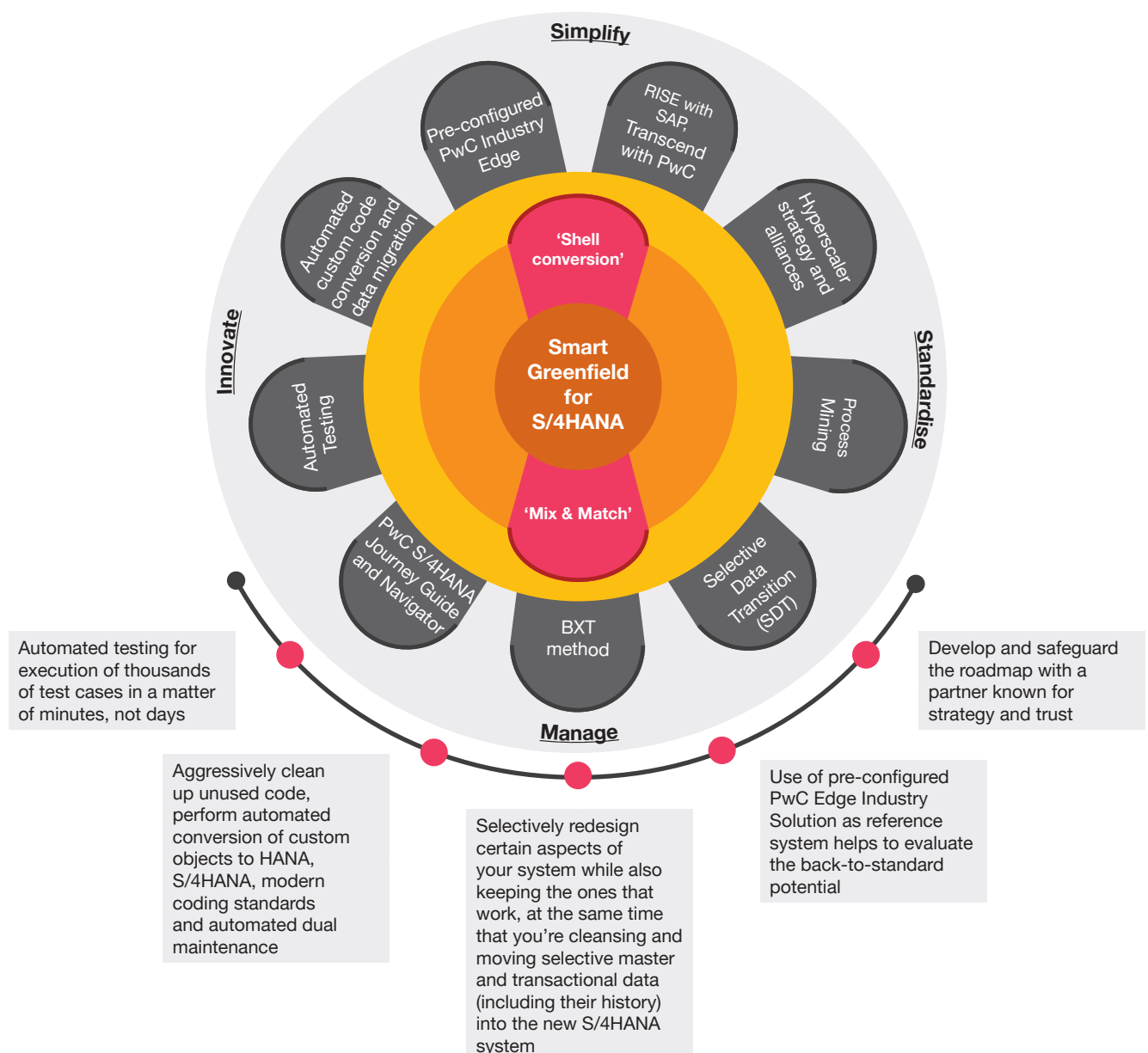
The flexibility of our Smart Greenfield approach makes it possible to remove parts of legacy custom code and historic data.

# Transformation with PwC Smart Greenfield

## PwC's Smart Greenfield approach enables organisations to get the most out of their business transformation to S/4HANA

To help companies maximise the business value of their S/4HANA transformation, our **PwC Smart Greenfield approach** includes multiple components for

**comprehensive coverage of all aspects of an S/4HANA transformation** and enables clients to choose from multiple options.



# What is a Smart Greenfield for S/4HANA?

## Two migration strategies supported by proven frameworks and platforms, which have been successfully applied at our clients

Different options are possible within our Smart Greenfield approach. The choice is usually tied to factors such as key drivers, degree of change, business benefits vs. risks, and organisational readiness. **The Smart Greenfield approach includes two migration strategies: the 'Mix & Match' and the 'Shell Conversion' strategy.**

These two migration strategies are described below:

### Mix & Match strategy

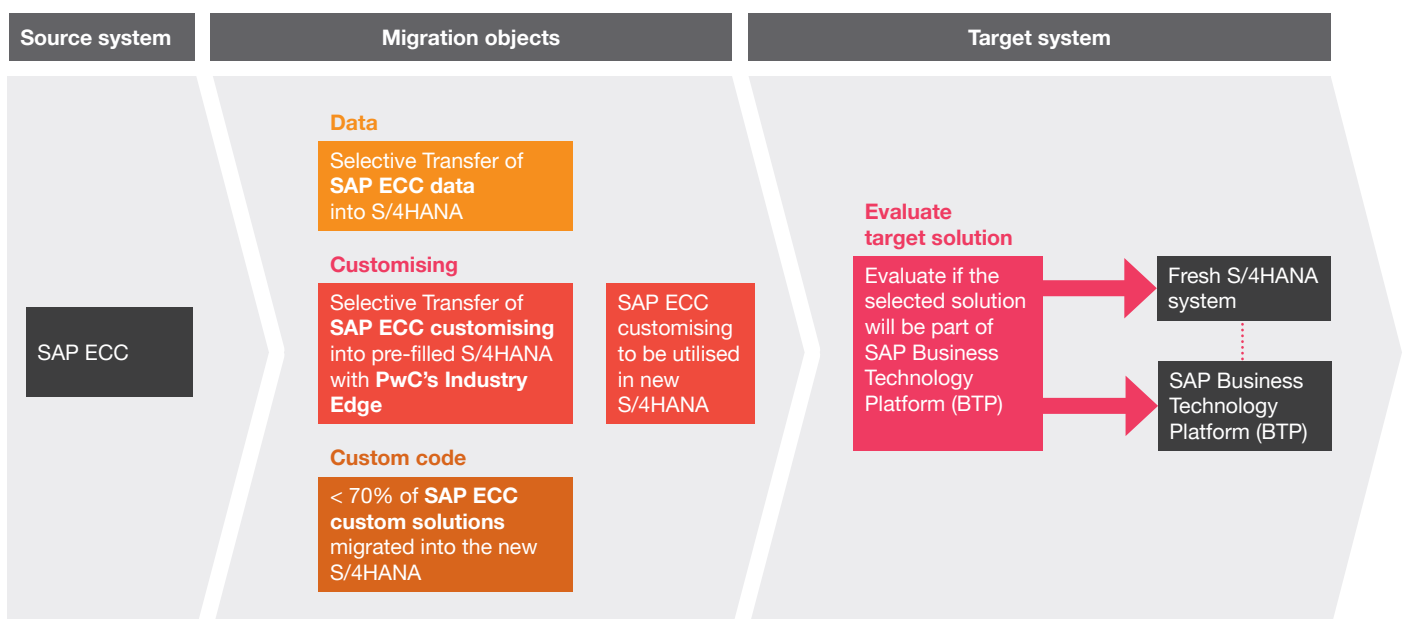
With Smart Greenfield 'Mix & Match' you build a new **SAP S/4HANA system in the cloud or on-premise, install the pre-configured PwC Industry Edge solution, adopt selected custom coding, interfaces or data from the productive ECC**, and either cut over to the new S/4HANA system (the so-called 'big-bang' scenario) or migrate the individual business units sequentially from your legacy SAP ECC application to the new S/4HANA system ('phased rollout').

For an organisation that has been using SAP for a long time and has accumulated a significant technical debt,

this option may be the fresh start necessary to enable it to overhaul its use of SAP and reduce complexities.

This is what the 'back to standard' movement among SAP clients is all about. **We complement this strategy with our PwC framework to assess which solutions can be implemented or enhanced on SAP Business Technology Platform (BTP).**

This option is **also suited to companies new to SAP** if they are **moving their data over from a non-SAP system.**



## Shell Conversion strategy

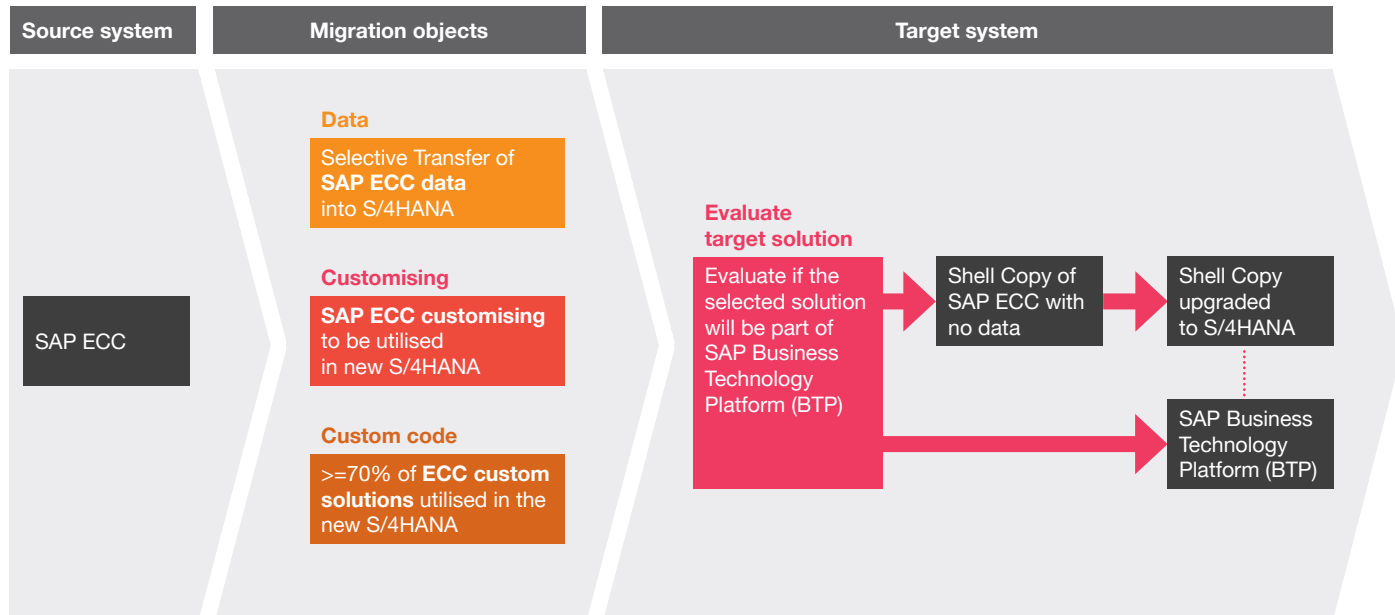
Smart Greenfield 'Shell Conversion' is based on the selective data transition approach into a copy of your **SAP ECC (shell) upgraded to S/4HANA**, which enables existing process and system landscapes to be transferred holistically and flexibly to the solution and data structures of SAP S/4HANA.

Shell Conversion is probably the most widely used model. **Ultimately, large businesses need to redesign some of their processes and systems while also maintaining some critical customisations and solutions.** Simply starting over from scratch or transferring your data and configuration over to a new version of SAP is going to cost both time and money.

The Shell Conversion strategy cherry-picks the best parts of Greenfield and Brownfield implementations, and is therefore ideal for large companies with a lot of data and complex systems.

**You mitigate a lot of the risks associated with making the jump to SAP S/4HANA.** You can selectively redesign certain aspects of your system and adopt functions from the pre-configured PwC Industry Edge solution while also keeping the ones that work, at the same time as cleansing and moving selective master and transactional data into the new S/4HANA system.

**We complement this strategy with our PwC framework to assess which solutions can be implemented or enhanced on SAP Business Technology Platform (BTP)**



# What is the trigger to select the right approach?

From the experience with our clients starting implementing an S/4HANA transition, we see that **the choice of the right migration strategy is usually tied to multiple criteria which clients select and prioritise based on their ambitions.**

See the figure below which depicts the multiple criteria and what they mean for each of the four migration options:

	Smart Greenfield			
	① Greenfield	② Smart Greenfield 'Mix & Match'	③ Smart Greenfield 'Shell Conversion'	④ Brownfield
Process transformation	Full possibility	Process redesign – possible Process reuse – limited possibility	Process redesign – limited possibility Process reuse – good possibility	Process redesign – possible but selective (restrictions on existing data) Process reuse – full possibility
Code/configuration	New code/configurations	Retain custom code and configuration Changes for required business transformations	Retain custom code and configuration Changes for required business transformations	Retain custom code and configuration Changes for required business transformations
Data transformation	Full possibility	Possible to greater extent	Possible to greater extent	Limited possibility
Historical data	Data conversion with no/selective historical data	Data conversion with no/selective historical data	Data conversion with no/selective historical data	Retain all historical data
Starting point	Fresh S/4HANA system	Fresh S/4HANA system	Existing SAP ECC shell container	Existing SAP ECC system
Implementation complexity	High	Medium/high	Medium/high	Medium
Change management	High	Medium +	Medium	Low
Deployment approach	Phased or big bang	Phased or big bang	Phased or big bang	Big bang only
Project timeline	Longest	Moderate +	Moderate	Fastest
Budget	\$\$\$	\$\$+	\$\$	\$
Business involvement	High	Moderate	Moderate	Low

Accelerated and automated by PwC tools and third-party tools such as SNP, smartShift and INT4.

# How do we apply the Smart Greenfield approach?

The starting point is a two-step phase to build the right consensus:

## 1 Definition of the target operating and process model

The global process owners are supported in **defining the target process model** and detailing it to process level 4-5, where it is possible to accurately **assess the impact on specific business units or geographies**. PwC uses proven tools and services to capture and analyse key information.

## 2 Roadshows and alignments

Roadshows and alignment meetings are conducted with **local and regional process leads to ensure that localisation aspects have been sufficiently covered in the target process model**. Once the process model is agreed upon by the process owners (global and local)

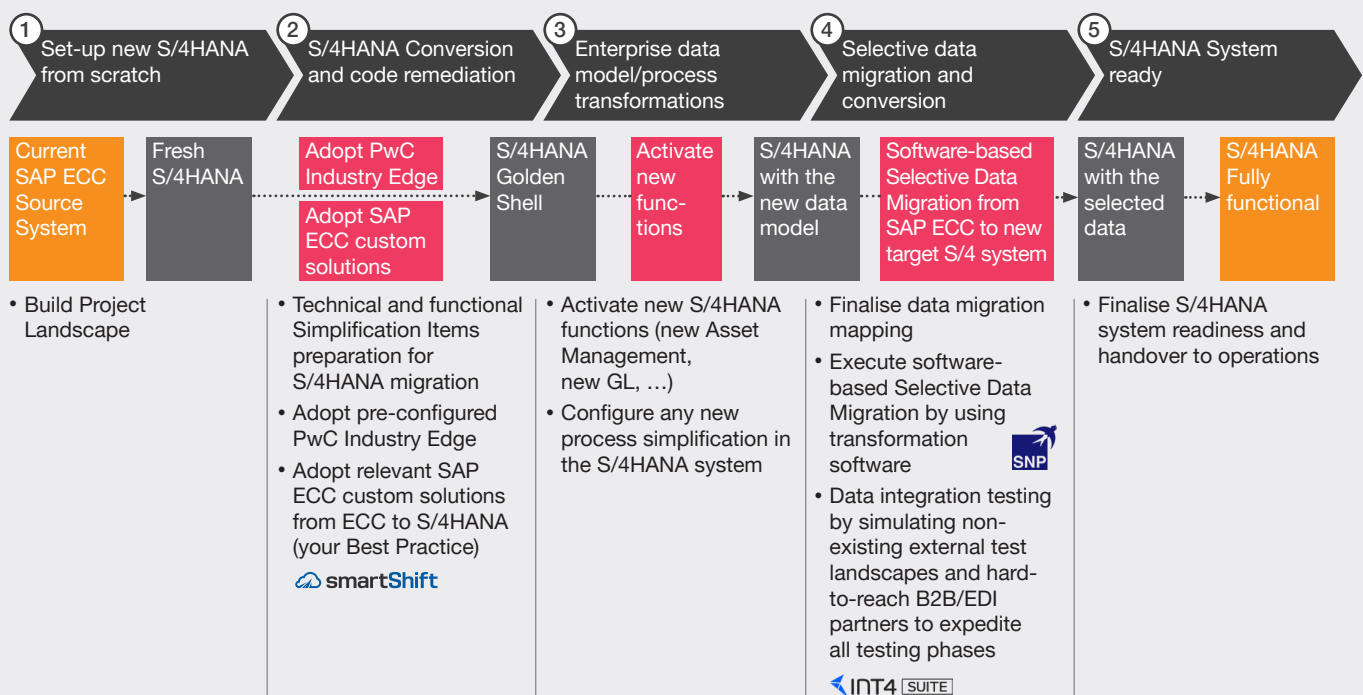
and as well as users in the organisation, it is important to **lay out the roadmap for the process changes to be activated**. This is typically the start of the S/4HANA journey for organisations that take the opportunity to simplify, standardise, harmonise, digitise and automate their processes as part of the upgrade from SAP ECC to SAP S/4HANA. In this preparation phase, we use the business insights from the Concept Phase and key stakeholders partnering for successful support during the Conversion Phase.

The results of this enabling two-step phase will support the execution of the selected migration strategy, either 'Mix and Match' or 'Shell Conversion'.

The following sections describe how these two migration strategies work.

## Mix and Match

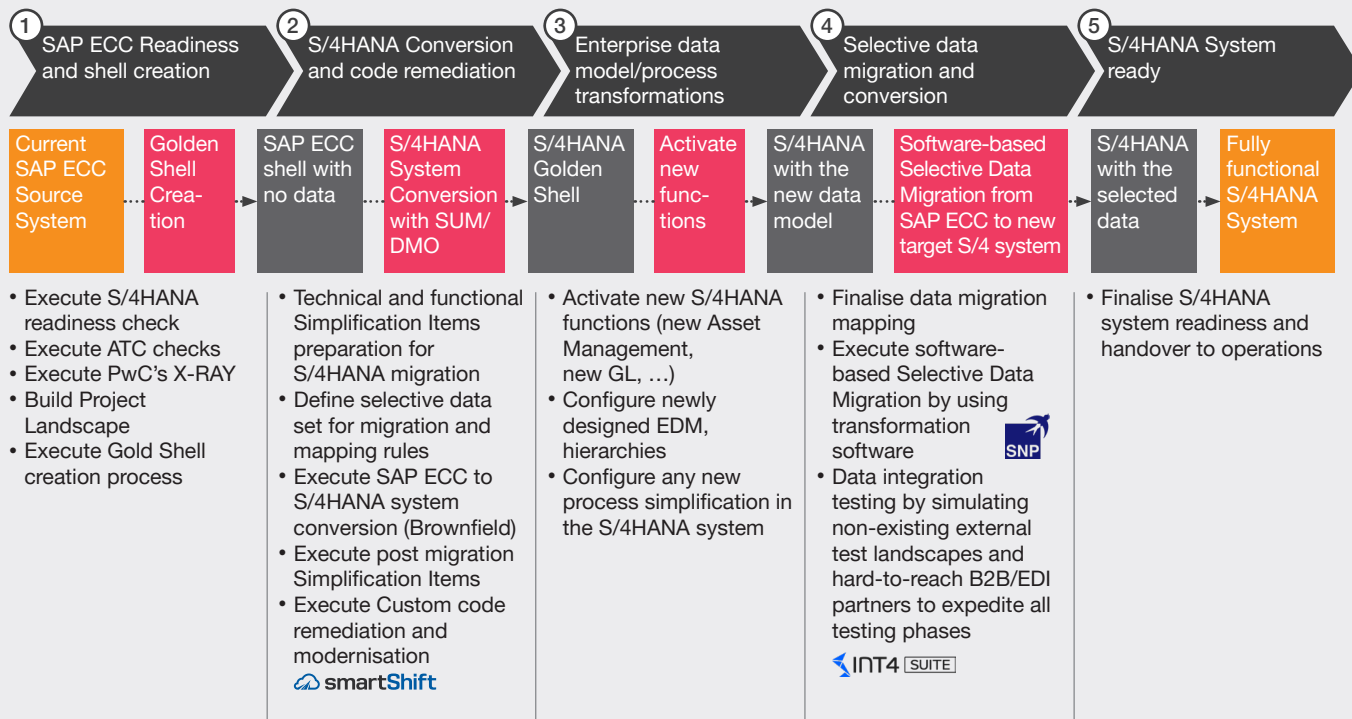
Build a new SAP S/4HANA system, install the pre-configured PwC Industry Edge solution, **adopt selected custom coding, interfaces or data from the productive ECC** and either cut over to the new system (the so-called 'big-bang' scenario) or migrate the individual business units sequentially from your legacy SAP ECC application to the new S/4HANA system ('phased rollout').





## Shell Conversion

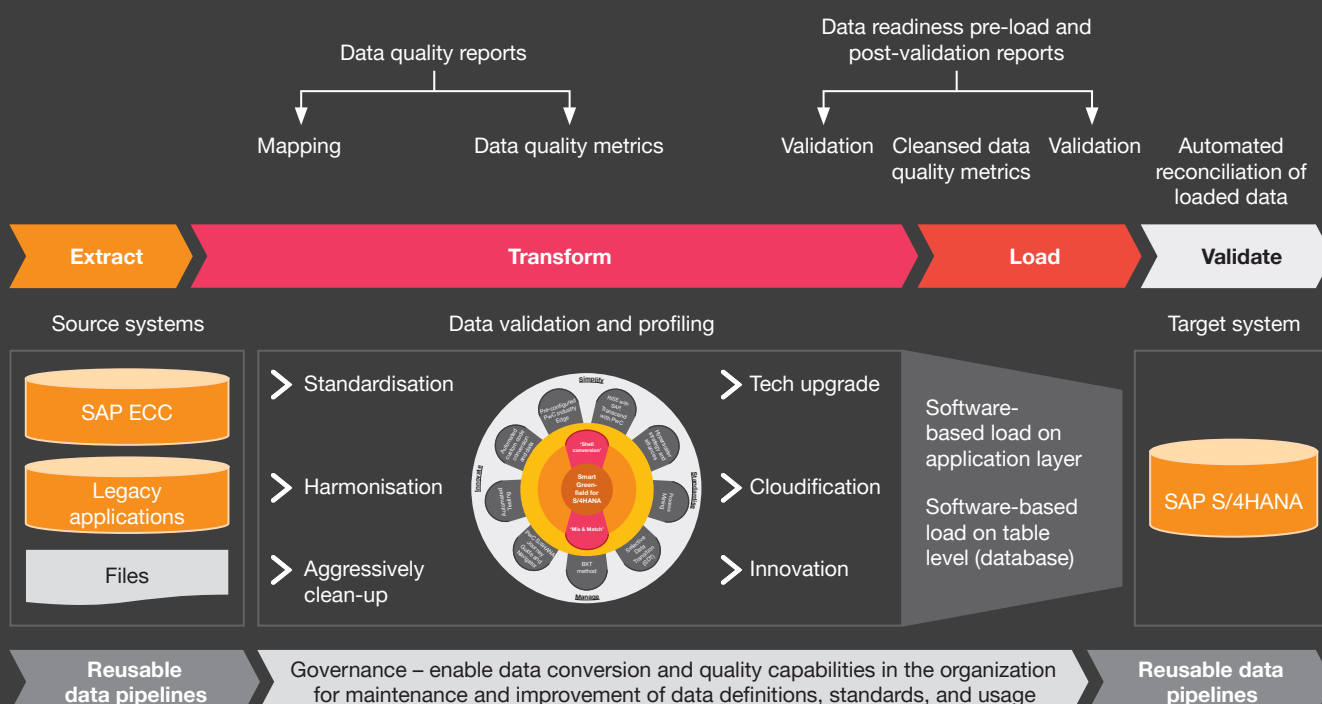
Copy the existing SAP ECC without data and upgrade it to S/4HANA. Maintain critical customisations and solutions with the capability to redesign existing processes and systems. Adopt selected data from the productive SAP ECC instance.



## Selective data migration and conversion

Selective data migration is a crucial component of the Smart Greenfield approach which is relevant for both migration strategies (Mix & Match and Shell Conversion). It relies on our collective experience from many similar projects and our accelerators, but the most important part of the success story is the experience of the team.

What makes successful data conversion projects stand out is the right combination of experienced resources with in-depth SAP knowledge working alongside your own business resources with the support of templates and tools as accelerators.



# Large companies use a combination of different approaches to drive value

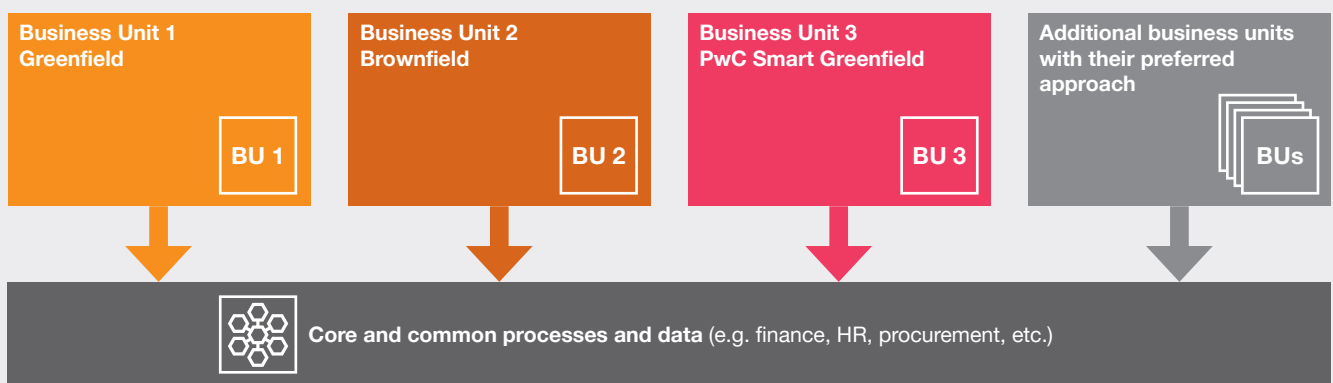
Global companies operating with **multiple business units (BUs)** focusing on a specific market, product and services may choose a combination of different approaches (Greenfield, Brownfield, Smart Greenfield, etc.).

Usually BUs have their own business ambitions and strategies, migration plan and budget, but still **interconnected to each other by core and common processes and data**.

At the corporate level, business and technology leadership need to **ensure that these diverse choices don't result in a fragmented and inefficient process, data and technology landscape**.

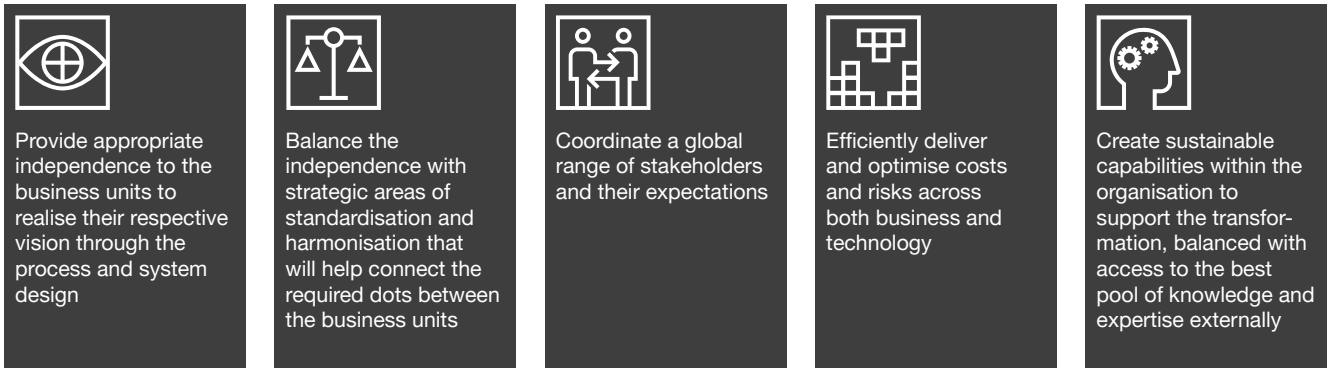
**Collaborative planning and strong governance** are key components in a successful migration as a corporate.

## Corporate



BU = Business Unit

The programme governance for such transformations will need to match not only the programme's size, scale, and global reach but also the complexity arising from the following factors:



# Why PwC

## Smart Greenfield?

**PwC accelerators and our trusted partnerships, together with a tried-and-tested and structured approach will boost your transformation to S/4HANA and de-risk large, complex technology change programmes**



PwC's 'Industry Edge' solution – an **integrated enterprise model system** to address each of our clients' unique industry needs



We will accelerate your journey by a proven structured approach, leveraging **unique best-in-class automation and intelligent conversion platforms**



We will enable your vision in a **fast, agile and secure way**



We will put in place a **lean delivery** model, with no compromise on **quality** but a close eye on reducing risks and efforts



- 8 level-one processes
- 100+ key design decisions
- 130 process design documents
- 150+ design workshop presentations
- 300+ preconfigured business scenarios
- 60+ common functional specifications
- 90+ training courses
- 100+ configuration documents
- 500+ business process procedures
- 800+ unit test cases



SNP is able to reduce data transformation times up to 40%



smartShift is able to reduce custom code remediation times by up to 80%



INT4 automated execution of thousands of integration test cases is a matter of minutes not days



Signavio offers a powerful, integrated platform that helps you quickly realign your organization and bring changes to life at an accelerated rate.



PwC's Data Insights Platform puts you on the fast track to a secure analytics pipeline with signals you can use to control your organization's future, right now.

### Trusted SNP partnership

The transformation software **SNP CrystalBridge** allows PwC to migrate **relevant and selected historical data retroactively to new processes and structures**.

PwC has a long-term partnership with SNP regarding the execution of complex data transformation projects and migration to S/4HANA.

### Trusted smartShift partnership

PwC partners with smartShift to accelerate and derisk the transformation and modernisation of custom code. SmartShift provides the only option to really **clean up and modernise the custom code base to be better prepared for a cleaner and leaner SAP core in the future**.

### Integration landscape simulation with Int4 Suite

**Isolate your new SAP S/4HANA from external dependencies**, such as 3rd party test systems and B2B/EDI partners, by using Int4 Suite to simulate these dependencies. This approach **removes many of the interdependency constraints encountered during integration testing phases, accelerating the testing process**.

# What are the advantages?

This approach offers various advantages, and the following list comprises the most strategic ones:

## Balance in terms of cost/disruption

Smart Greenfield helps organisations with various 'hybrid' alternatives to combine technology upgrades with selective renovation and to **find the hybrid option with the best ROI and balance in terms of cost/disruption**.

## Mitigate risks

With Smart Greenfield 'Shell Conversion' you mitigate a lot of the risks associated with making the jump to SAP S/4HANA. You can **selectively redesign certain aspects of your system and adopt functions from the pre-configured PwC Industry Edge solution while also keeping the ones that work**, at the same time as **cleansing and moving your data into the new S/4HANA system**.

## Unlock new S/4HANA best practices and innovations

Smart Greenfield allows companies to **unlock new S/4HANA best practices and innovations** to create real business value. This results in **shorter time-to-value for business benefits** compared to the traditional multi-step approach using a Brownfield conversion and picking up on one or more development projects later on.

## Maximising benefits with a one-stop shop

Adopting **a single strategic partner approach for the whole programme** ensures a consistent and seamless approach **across technology, business process and people aspects**.

We are the partner that will provide you with the best chance of facilitating **real business outcomes, rather than just a technology go-live**.

## Game-changing value proposition

In contrast to other hybrid approaches, our methodology incorporates **the best elements of SNP, powered by CrystalBridge, smartShift's Intelligent Automation platform, and Int4 Suite in our holistic Transform framework**.

Transform is PwC's proven framework for managing and de-risking large and complex technology change programmes.

## Pursue required simplifications

**Separation of system and data makes it possible to pursue required simplifications. Old and complex custom code and obsolete structures are cleaned out with smartShift's Intelligent Automation platform.**

The empty shell approach makes it possible to safeguard previous investments in well-functioning processes and solutions and to focus exclusively on areas needing change.





# Top 3 key considerations for success

## Discuss and agree key topics upfront – Big Rocks



We have a starter list of Big Rocks that we need to address in the Pre-Study.

## Establish the right solution governance



During process vision workshops we are likely to collect many pain points. Some of those will be complex to implement within the current intended approach.

We will leverage a framework that we have used in similar projects to help decision-making.

## Think through the impact of your improvements



Each improvement area needs to be thought through for data impacts, solution complexity, testing complexity and business change and also planned for. e.g.: Business Partner, Material Ledger, New GL.



# Relevant experiences

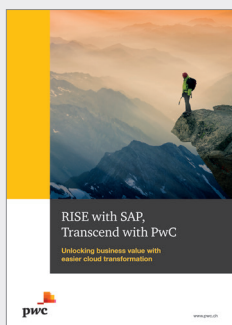
Our team has had several Smart Greenfield successes with global clients in different industries. Below is a case we want to share with you.



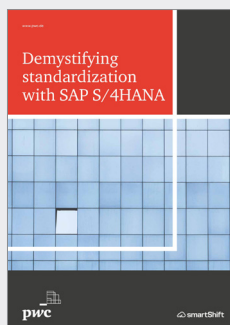
[Transforming the global ERP of a multinational renewable energy company](#)

We are happy to share more cases with you on request.

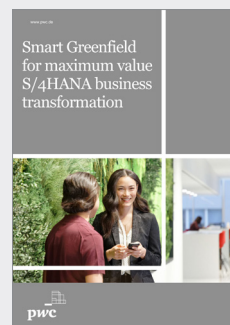
Alongside our success stories involving Smart Greenfield, **our team drives thought leadership on the subject of S/4HANA business transformation**, with several case studies for you to explore:



[RISE with SAP. Transcend with PwC](#)



[Demystifying standardization with SAP S/4HANA](#)



[Smart Greenfield for maximum value S/4HANA business transformation](#)



[Design Authority – the key to securing your S/4 goal](#)



[Approaching S/4HANA](#)



[Best-in-Class Intercompany Reconciliation Process](#)

# PwC's SAP practice consistently leads the way

PwC's SAP practice is consistently ranked as one of the top S/4HANA Cloud partners. PwC is a designated Certified Global Cloud Elite Partner.



# Contacts

Should you have questions about PwC's Smart Greenfield or if you would like to discuss your own SAP S/4HANA transformation challenges, please contact us.



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